Attorney Docket: 028972.53936US

WHAT IS CLAIMED IS:

1. Spray element for a spray head, especially for spraying the molds of pressure casting machines, having a spray nozzle which can be fed through a valve with the medium to be sprayed and with compressed air, the valve being provided with a control piston operated by control air, wherein the control piston plus the spray nozzle is arranged with both ends in the cylindrical section of a casing, wherein the first end has a smaller diameter than the second end and is guided with a sealing ring in a cylindrical section before a first chamber loaded with the medium to be sprayed, wherein the second end is guided in a second cylindrical chamber into which a connecting bore leads to the spray nozzle, and the side facing away from the first end of the control piston has a connection for control air, and wherein the distance between the two ends of the control piston is chosen such that the sealing ring in the starting position of the control piston lies sealingly in the cylindrical section and, upon the application of control air to the second end, enters into the first chamber.

- 2. Spray element according to claim 1, wherein the housing for the control piston is provided with a projection to receive the spray nozzle.
- 3. Spray element according to claim 2, wherein the projection is part of the housing.
- 4. Spray element according to claim 1, wherein all connections for the control air for the medium to be sprayed and for compressed air are disposed on the side of the housing which faces away from the discharge orifice of the spray nozzle.
 - 5. A spray element for a spray head, comprising:

a casing including a first chamber, a cylindrical section, a second cylindrical chamber, and a connecting bore, wherein the cylindrical section is placed between the first chamber and the second cylindrical chamber, and wherein the first chamber is connected a medium to be sprayed;

a valve including first and second pistons, a rod connecting the first and second pistons, and a sealing ring disposed on the first piston; and

a spray nozzle disposed in the casing, which can be fed with compressed air

and, through the valve, with the medium to be sprayed, wherein the first piston of the valve has a smaller diameter than the second piston and can be guided with the sealing ring in the cylindrical section of the case, wherein the second piston is guided in a second cylindrical chamber and divides the second cylindrical chamber into a first section, in which the rod is disposed, and a second section, wherein the connecting bore connects the first section of the second cylindrical chamber with the spray nozzle, wherein the second section of the second cylindrical chamber is connected with control air, and wherein the relative position of the pistons is chosen such that the sealing ring in a starting position of the valve lies sealingly in the cylindrical section and, upon the application of control air to the second piston, enters the first chamber.

- 6. The spray element according to claim 5, wherein the casing has a projection for receiving the spray nozzle.
- 7. The spray element according to claim 6, wherein the projection is integral with the rest of the casing.
- 8. The spray element according to claim 4, wherein connections for the control air, the medium to be sprayed and compressed air are disposed on a side of the case which faces away from a discharge orifice of the spray nozzle.
 - 9. A method for making a spray element for a spray head, comprising:

a casing including a first chamber, a cylindrical section, a second cylindrical chamber, and a connecting bore, wherein placing a cylindrical section of a case of the spray element between a first chamber and a second cylindrical chamber of the case of the spray element:

connecting the first chamber to a medium to be sprayed;

disposing a spray nozzle in the casing, which spray nozzle can be fed with compressed air and, through a valve, with the medium to be sprayed, wherein a first piston of the valve has a smaller diameter than a second piston;

placing the valve's first piston with a sealing ring in the cylindrical section of the case;

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placing the valve's second piston in a second cylindrical chamber, thus dividing the second cylindrical chamber into a first section, in which the rod is disposed, and a second section;

the connecting bore connecting the first section of the second cylindrical chamber with the spray nozzle;

connecting the second section of the second cylindrical chamber with control air; and

selecting the relative position of the pistons such that the sealing ring in a starting position of the valve lies sealingly in the cylindrical section and, upon the application of control air to the second piston, enters the first chamber.